

## Equality and Safety Impact Assessment

The **Public Sector Equality Duty** (Section 149 of the Equality Act) requires public bodies to have due regard to the need to eliminate discrimination, advance equality of opportunity, and foster good relations between different people carrying out their activities.

The Equality Duty supports good decision making – it encourages public bodies to be more efficient and effective by understanding how different people will be affected by their activities, so that their policies and services are appropriate and accessible to all and meet different people’s needs. The Council’s Equality and Safety Impact Assessment (ESIA) includes an assessment of the community safety impact assessment to comply with Section 17 of the Crime and Disorder Act and will enable the Council to better understand the potential impact of proposals and consider mitigating action.

<b>Name or Brief Description of Proposal</b>	Reduce street lighting at night.
<b>Brief Service Profile (including number of customers)</b>	
<p>Highway street lighting is sited on most roads in the city and the light source impacts on every resident, business and after-dark visitor to the city. There are around 26,000 lighting columns in Southampton. Street lighting is already ‘dimmed’ (generally a percentage reduction in brilliance) through a policy in most areas of the city; this regime is subject to exemptions.</p> <p>Street lighting in Southampton is maintained as part of a 25-year Street Lighting Private Finance Initiative (PFI) - which commenced in 2010 - between Southampton City Council and Tay Valley Lighting, with services delivered by ENERVEO.</p> <p>The first five years of the contract involved the upgrade of the council’s street lights using the latest technology. This:-</p> <ul style="list-style-type: none"> <li>○ Provides essential energy savings;</li> <li>○ Minimises light pollution; and</li> <li>○ Reduces the overall number of street lights across the city to provide a more sustainable system for the future.</li> </ul> <p>For the remaining 20 years of the contract, the focus is on maintaining and operating the city council’s lights to a very high standard and looking at future innovation (for example LED technology). A LED conversion project which, at its completion, will result in around 50% of the lighting stock being converted to LED, is in progress.</p> <p>The Council’s street lighting currently emits approximately 1,514 tons of CO2 per annum.</p>	

The switch off of lighting – like dimming – is controlled remotely through a sophisticated system and reversal of dimming or switch off of street lighting at specific lighting columns or streets can be achieved quickly.

The Council is currently considering a range of options for energy cost efficiency and environmental benefit, through the reduction of street lighting, including residential street lighting. The final proposal would result in the part-night switch off of a proportion of street lighting.

## **Summary of Impact and Issues**

### **Energy Costs and Pressure**

- The annual cost of street lighting energy in 2021/22 was £ 954,000.
- Since the commencement of the Covid 19 pandemic there have been huge fluctuations in wholesale energy prices, particularly gas.
- At times the wholesale market gas prices have been over 500% higher than pre pandemic levels.
- Due to the Council's procurement strategy it has been protected from the worst of the increases; however, there will continue to be unprecedented price rises for the foreseeable future.
- For guidance, it is currently estimated (based on a 'mid case') that electricity cost will rise by 156% in 2022-23 and 222% in 2023-24 against 2020-21 prices and it is estimated that the Council's overall energy bill could rise by approximately £4.7M between 2021-22 and 2023-24. These are broad forecasts and actual figures will be impacted by the volatility and pricing in the markets.
- It is now estimated that the 12 month energy cost for the streetlighting account from October 2022 (with no changes) will be £3,017,000 and forecast expenditure is being revised to reflect this pressure.

### **Crime and lighting studies**

1. Reduced street lighting in England and Wales is not associated with road traffic collisions or crime, according to research published in the [Journal of Epidemiology and Community Health](#). This 2015 study led to the following conclusions:

*'Researchers analysed 14 years of data from 62 local authorities across England and Wales who had implemented a range of reduced street light strategies, including switching lights off permanently, reducing the number of hours that lamps are switched on at night, dimming lights, and replacing traditional orange lamps with energy efficient white light LED lamps.'*

*To assess road safety, the researchers looked at all roads in participating authorities, examining what type of street lighting was used and the number of traffic collisions that happened at night relative to the day during 2000-13. There was no evidence of an association between reduced street lighting and night-time collisions across England and Wales.*

*To assess crime, researchers looked at data from 2010-13 [1] to analyse how many crimes took place in an area and what types of street lighting were used there. They focused on offences more likely to occur at night, including burglary, theft of or from a vehicle, robbery, violence and sexual assault. Overall, there was no evidence of an association between reduced street lighting and increased crime across England and Wales.*

*Study co-author Professor Shane Johnson of UCL Security and Crime Science, said: "The study findings suggest that energy saving street lighting adaptations have not increased area level crime in the neighbourhoods studied. This is very encouraging but it is important to note that it does not mean that this will be the case under all conditions, and so changes to lighting should be managed carefully." ‘*

2. The Cambridgeshire Research Group report (August 2015 attached), indicates that *‘the best conclusion that can be drawn from the research literature is that the general benefit of street lighting in reducing crime is unproven but in very specific circumstances, where there is an existing crime hot-spot and current lighting is poor then improvements may prove beneficial.’*



Street-Lighting-Policy (Cambridgeshire).p

3. This year's Guardian report [Street lighting increases theft from cars, rather than deterring opportunists | Society | The Guardian](#) in reference to the potentially positive effects of turning off street lights in reducing opportunist car crime.
4. The College of Policing. Street Lighting: increasing the levels of lighting on the street or in other public spaces [Street lighting | College of Policing](#) This concludes that *‘evidence suggests improved street lighting can reduce crime’* (with some further clarity given over what this means in practice).

Overall, these studies are far from conclusive and draw some conflicting conclusions, but there is reasonable evidence that - with an agile and comprehensive exceptions scheme – the city should not be subject to an increase in crime as a result of these proposals and that there may even be a reduction in some crime types.

### **Other highway authorities**

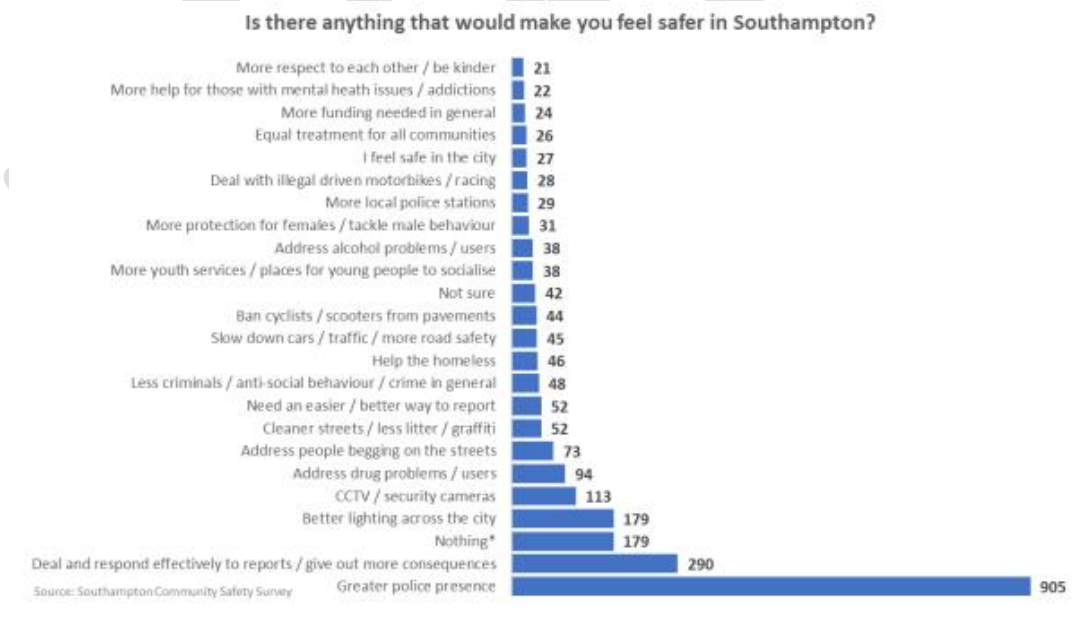
There are a range of County Council policies in operation for street lighting switch off but research to date has not identified any Unitary or City Council with a City-based part-night switch off regime. It is, of course, noted that whilst towns and cities within County Council areas may have similar features to Southampton, that significant parts of the area covered will have more rural features compared to Southampton's urban environment.

It should also be noted that other areas have exception schemes and that these can be significant and include town centres such as [Part night lighting | Hampshire County Council \(hants.gov.uk\)](http://hants.gov.uk) From the research to date, the following approaches are in place – in particular the approach to residential areas should be noted:-

Council	Approach
Hampshire CC	Part night lighting operates in most residential areas (off between 1am and 4am)
Surrey CC	Selected roads switched off between 1am & 5am
Dorset CC	Part night lighting applied to most quiet, urban residential and rural roads (off between approx. 1am and 5:30am)
Oxfordshire CC	Residential area street light switch-off between 12:30am and 5:30am

### Community Safety Survey

The last Community Safety Survey identified street lighting as one of the key things which would make people feel safer:



### Potential Positive Impacts

Financial

It is estimated that the financial saving for the switch off of street lighting for part or all of the night would result in a saving of circa £450,000 per annum against the forecast costs.

CO2 and lighting impact

It is estimated that the CO2 reduction for the switch off of street lighting between during part of the night would result in a CO2 saving estimated between 160 and 600 tonnes per annum.

These figures would vary depending on the precise nature of the scheme adopted and any exceptions, etc.

There would be a significant reduction in light spillage/pollution across the city.

There would be a positive ecological impact as a result of reducing the intrusive impact of street lighting. A study by the universities of York and Newcastle concludes that switching off street lights in the middle of the night to save money and energy could have a positive knock-on effect on nocturnal pollinators. This is primarily because night-lighting disrupts nocturnal pollination by attracting moths upwards, away from the fields and hedgerows so they spend less time feeding and therefore pollinating.

[Street light switch-off benefits night-time pollinators - News and events, University of York](#)

A BBC article sets out the harm to wildlife associated with street and other lighting.

[The argument for switching off lights at night - BBC Future](#)

<b>Responsible Service Manager</b>	Colin Perris
<b>Date</b>	26/10/22
<b>Approved by Senior Manager</b>	
<b>Date</b>	

**Potential Impact**

<b>Impact Assessment</b>	<b>Details of Impact</b>	<b>Possible Solutions &amp; Mitigating Actions</b>
<b>Age</b>	There may be a disproportionate impact on some elderly residents who are outside of their homes during part of the night due to – typically – some of these residents having poorer eyesight and potential physical frailty	Consider exceptions in specific locations for example, close to sheltered housing schemes, and explore lit routes.  Consider the public communications about the changes.

<b>Impact Assessment</b>	<b>Details of Impact</b>	<b>Possible Solutions &amp; Mitigating Actions</b>
<b>Disability</b>	There may be a disproportionate impact on people with physical disabilities who are outside of their homes during part of the night as some people with physical disabilities may place additional reliance on having roads and pavements lit	Consider an exceptions scheme and explore lit routes.  Consider within the public communications about the changes
<b>Gender Reassignment</b>	No known significant additional impact	N/A
<b>Marriage and Civil Partnership</b>	No known significant additional impact	N/A
<b>Pregnancy and Maternity</b>	There may be a disproportionate impact on people who are pregnant or who are outside of their homes with young children during part of the night, additional reliance may be placed on having roads and pavements lit	Consider within the public communications about the changes
<b>Race</b>	No known significant additional impact	N/A
<b>Religion or Belief</b>	No known significant additional impact	N/A
<b>Sex</b>	The fear of crime and the risk of assault may be greater for women and girls.	Consider an exceptions scheme based on crime rates and ASB hotspots and explore lit routes.
<b>Sexual Orientation</b>	No known significant additional impact	N/A
<b>Community Safety</b>	There is a risk of actual crime and the fear of crime increasing.	Communications and information will be important in explaining the studies which have not drawn this conclusion.  Consider an exceptions scheme based on crime rates and ASB hotspots and explore lit routes.
<b>Poverty</b>	No known significant additional impact	N/A
<b>Health &amp; Wellbeing</b>	No known significant additional impact	N/A
<b>Other Significant Impacts</b>	N/A	N/A

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